1 CONTENTS COPYING MANAGEMENT SYSTEM
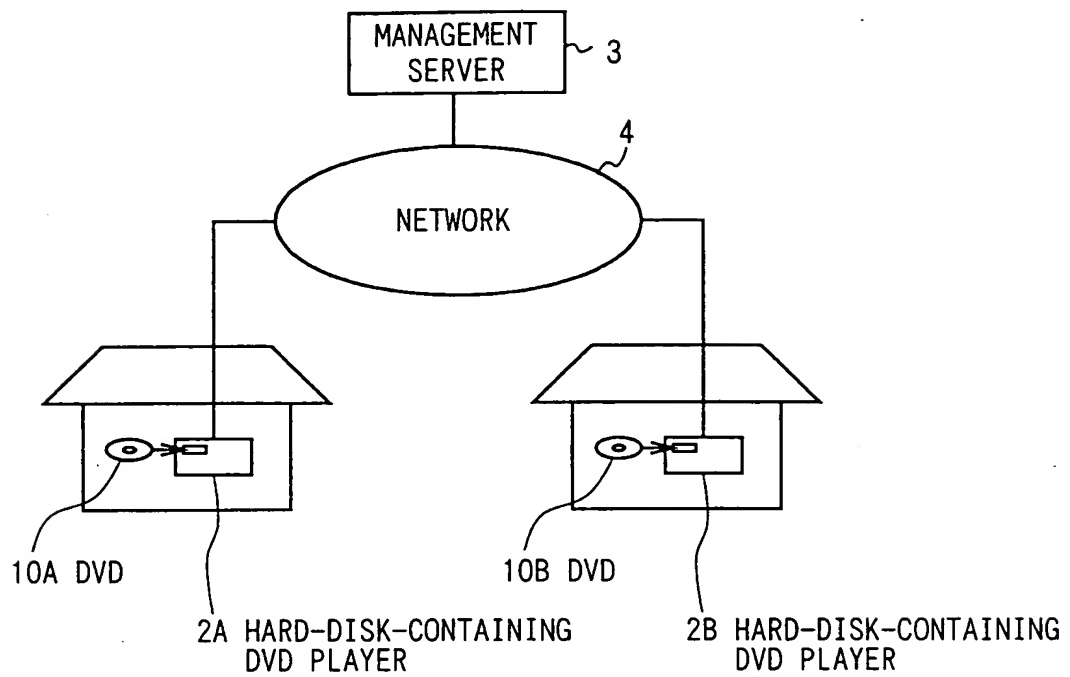

10A DVD   10B DVD

2A HARD-DISK-CONTAINING   2B HARD-DISK-CONTAINING
DVD PLAYER   DVD PLAYER

FIG. 1

FIG. 2

2A HARD-DISK-CONTAINING DVD PLAYER

TO MANAGEMENT SERVER 3

TO TELEVISION MONITOR

It:TITLE IDENTIFYING INFORMATION
Iw:MEDIUM IDENTIFYING INFORMATION
Iddrv:APPARATUS IDENTIFYING INFORMATION

3 MANAGEMENT SERVER

TO HARD-DISK
-CONTAINING
DVD PLAYER 2

COLLATING SECTION 50

CONTROL SECTION 51

TRANSMISSION /RECEPTION SECTION 52

DECODING SECTION 53

Iw ACCUMULATING SECTION 54

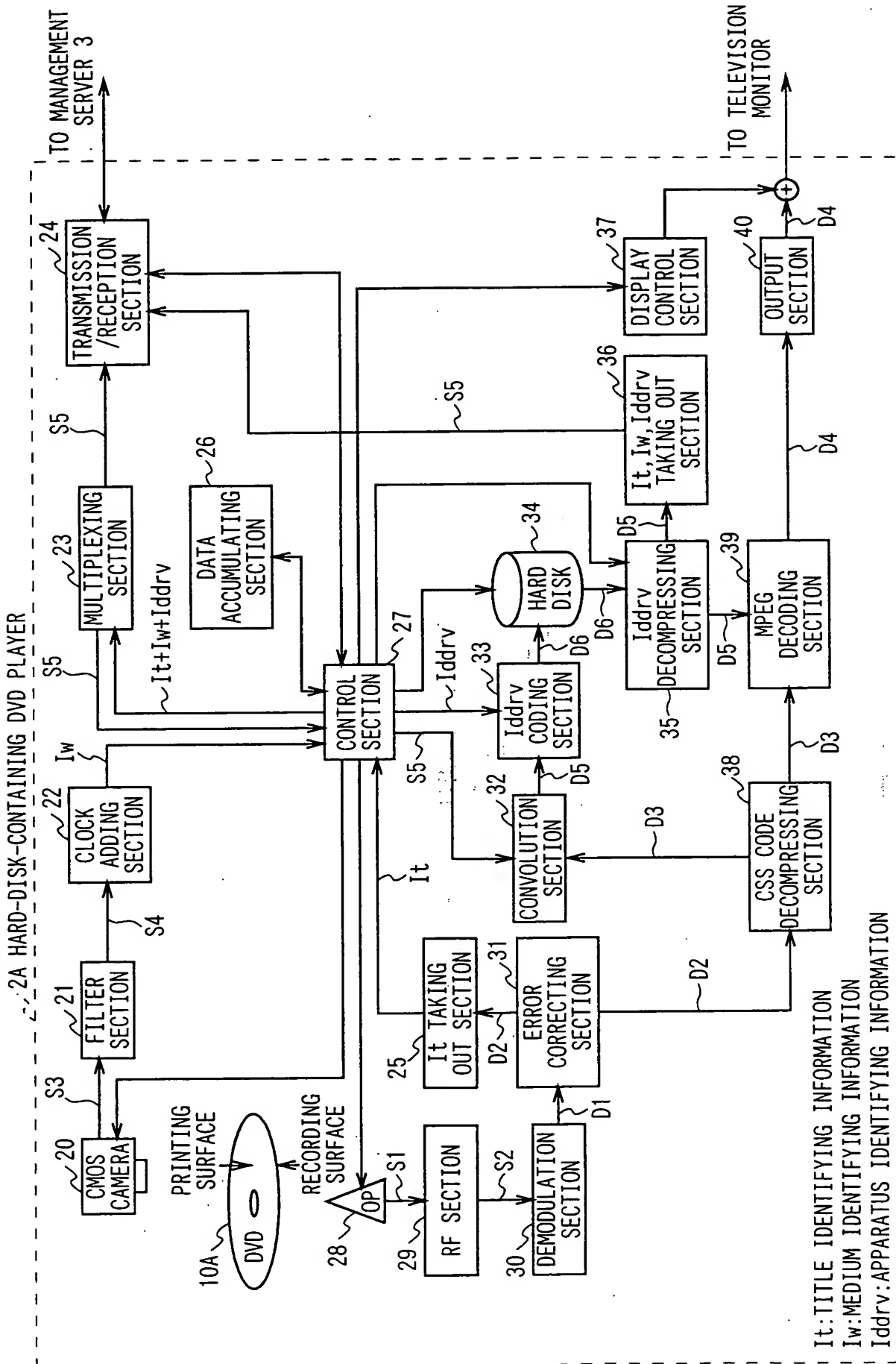IDENTIFYING INFORMATION DATABASE 55

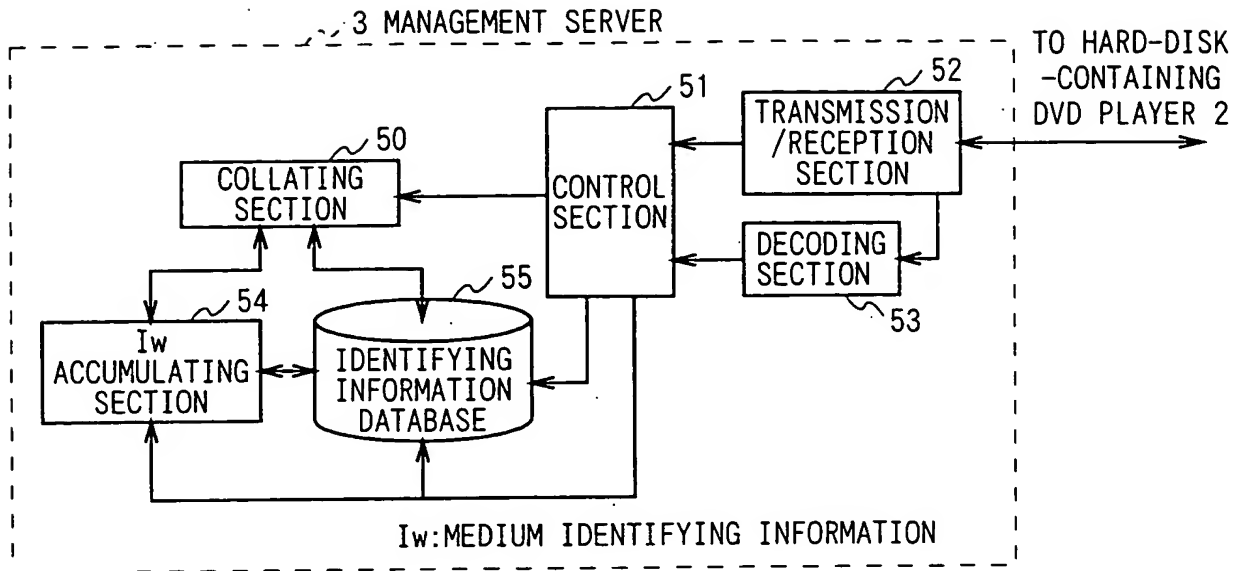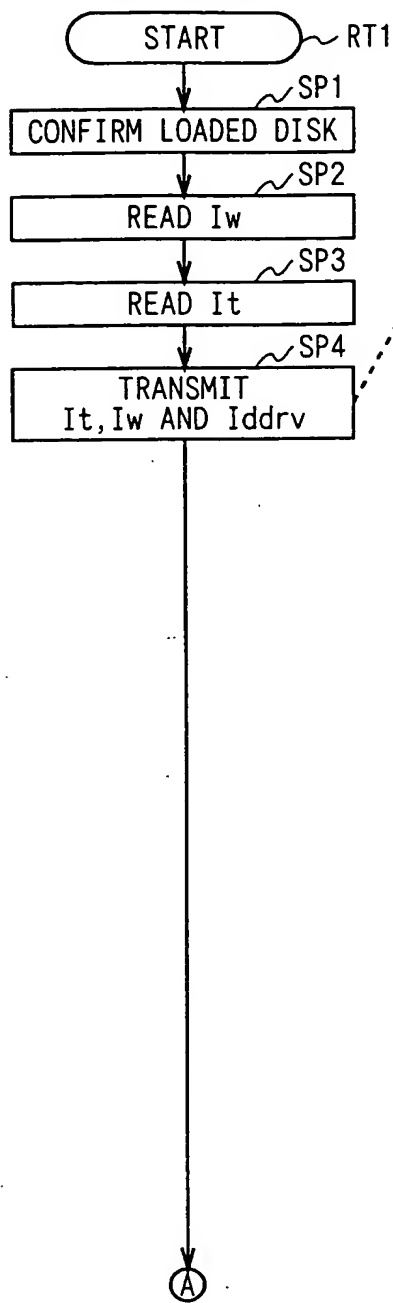Iw:MEDIUM IDENTIFYING INFORMATION
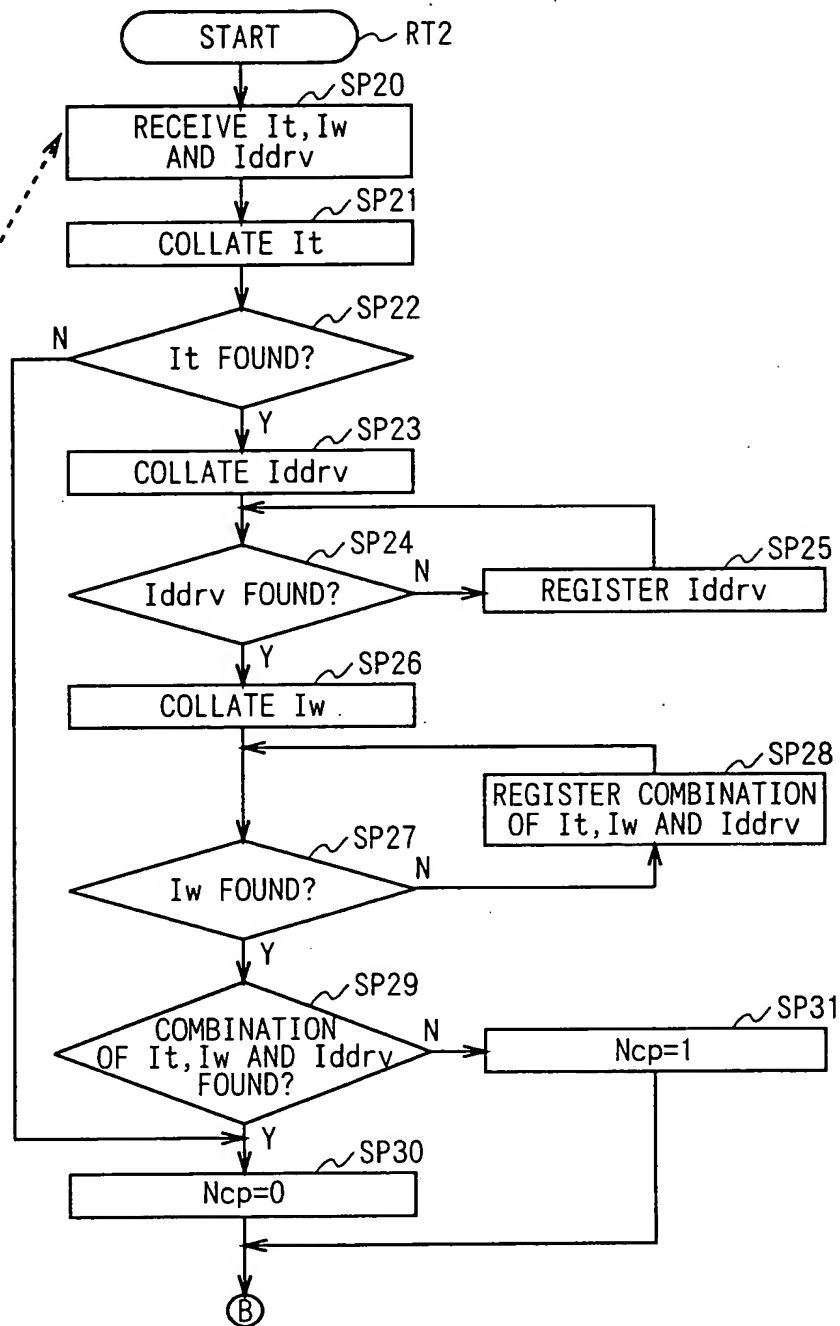
FIG. 3

COPYING PROCESS SEQUENCE
AT HARD-DISK-CONTAINING
DVD PLAYER

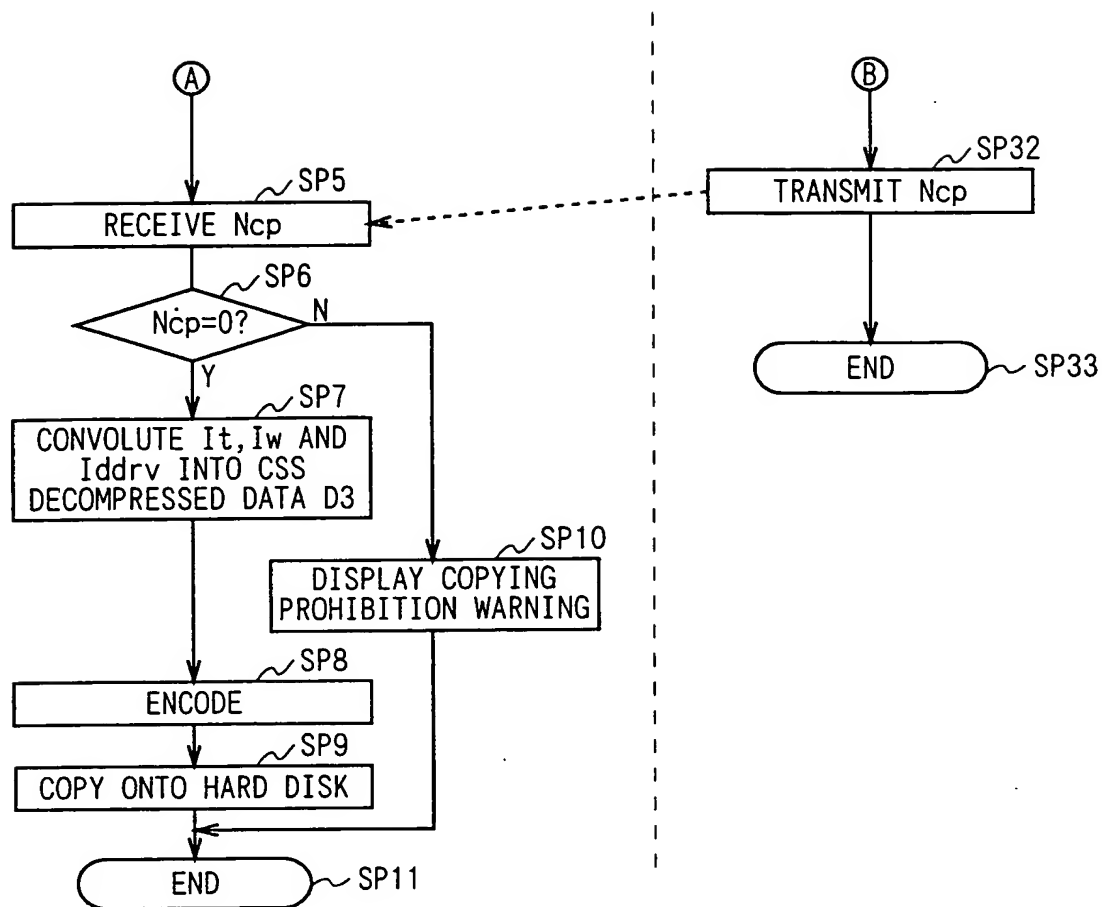COPYING PROCESS SEQUENCE
AT MANAGEMENT SERVER

START ～RT1

START ～RT2

～SP1
CONFIRM LOADED DISK

～SP20
RECEIVE It,Iw
AND Iddrv

～SP2
READ Iw

～SP21
COLLATE It

～SP3
READ It

～SP22
It FOUND?
N
Y ～SP23

～SP4
TRANSMIT
It,Iw AND Iddrv

COLLATE Iddrv

～SP24
Iddrv FOUND?
N → ～SP25
REGISTER Iddrv

Y ～SP26
COLLATE Iw

～SP28
REGISTER COMBINATION
OF It,Iw AND Iddrv

～SP27
Iw FOUND?
N

Y

～SP29
COMBINATION
OF It,Iw AND Iddrv
FOUND?
N → ～SP31
Ncp=1

Y ～SP30
Ncp=0

Ⓐ

Ⓑ

It:TITLE IDENTIFYING INFORMATION
Iw:MEDIUM IDENTIFYING INFORMATION
Iddrv:APPARATUS IDENTIFYING INFORMATION

FIG. 4

Ⓐ

SP5
RECEIVE Ncp

SP6
Ncp=0? — N

Y

SP7
CONVOLUTE It,Iw AND
Iddrv INTO CSS
DECOMPRESSED DATA D3

SP10
DISPLAY COPYING
PROHIBITION WARNING

SP8
ENCODE

SP9
COPY ONTO HARD DISK

END — SP11

Ⓑ

SP32
TRANSMIT Ncp

END — SP33

It:TITLE IDENTIFYING INFORMATION
Iw:MEDIUM IDENTIFYING INFORMATION
Iddrv:APPARATUS IDENTIFYING INFORMATION

FIG. 5

FIG. 6A

COMBINATION NO. KNo	TITLE IDENTIFYING INFORMATION It	APPARATUS IDENTIFYING INFORMATION Iddrv	MEDIUM IDENTIFYING INFORMATION Iw	PHASE DIFFERENCE INFORMATION P
M000001	DVD000010	–	C:¥wavdat¥DVD000010.000	0
M000002	DVD000230	–	C:¥wavdat¥DVD000230.000	0
...	...	...	...	...

FIG. 6B

COMBINATION NO. KNo	TITLE IDENTIFYING INFORMATION It	APPARATUS IDENTIFYING INFORMATION Iddrv	MEDIUM IDENTIFYING INFORMATION Iw	PHASE DIFFERENCE INFORMATION P
M000001	DVD000010	–	C:¥wavdat¥DVD000010.000	0
U000001	DVD000010	HDD000150	C:¥wavdat¥DVD000010.002	2
U000002	DVD000010	HDD001200	C:¥wavdat¥DVD000010.005	5
M000002	DVD000230	–	C:¥wavdat¥DVD000230.000	0
U000003	DVD000230	HDD000150	C:¥wavdat¥DVD000230.002	2
U000004	DVD000230	HDD001200	C:¥wavdat¥DVD000230.003	3
...	...	...	...	...

~100

> WARNING!!
> THIS DVD HAS BEEN COPIED BY SOME
> OTHER USER.
> THEREFORE, THE PROCESS OF COPYING
> THE DVD IS SUSPENDED.

FIG. 7A

~101

> WARNING!!
> THE COPIED CONTENTS HAVE BEEN COPIED BY A
> RECORDING APPARATUS OTHER THAN THIS
> HARD-DISK-CONTAINING DVD PLAYER.
> THEREFORE, THE PROCESS OF REPRODUCING THE
> COPIED CONTENTS IS SUSPENDED.

FIG. 7B

~102

> WARNING!!
> THE COPIED CONTENTS HAVE BEEN ILLEGALLY
> COPIED.
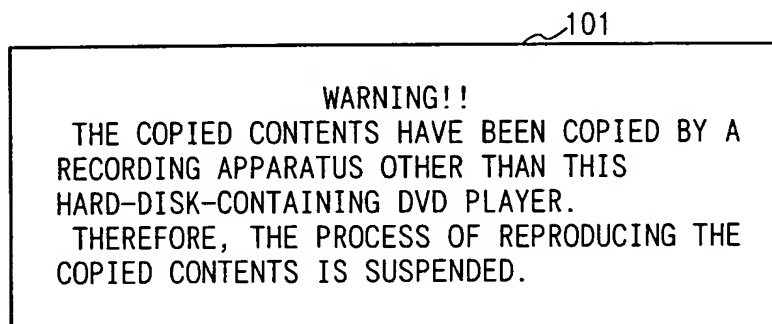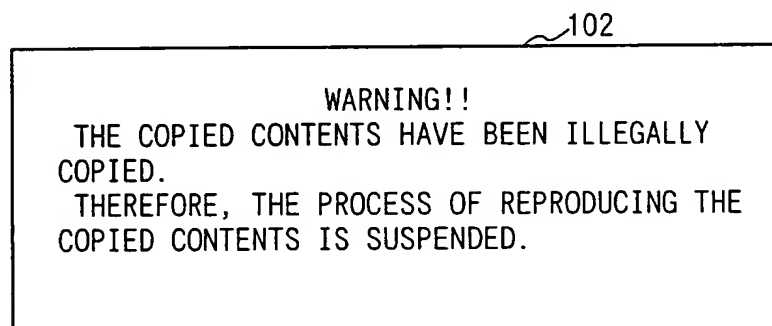> THEREFORE, THE PROCESS OF REPRODUCING THE
> COPIED CONTENTS IS SUSPENDED.

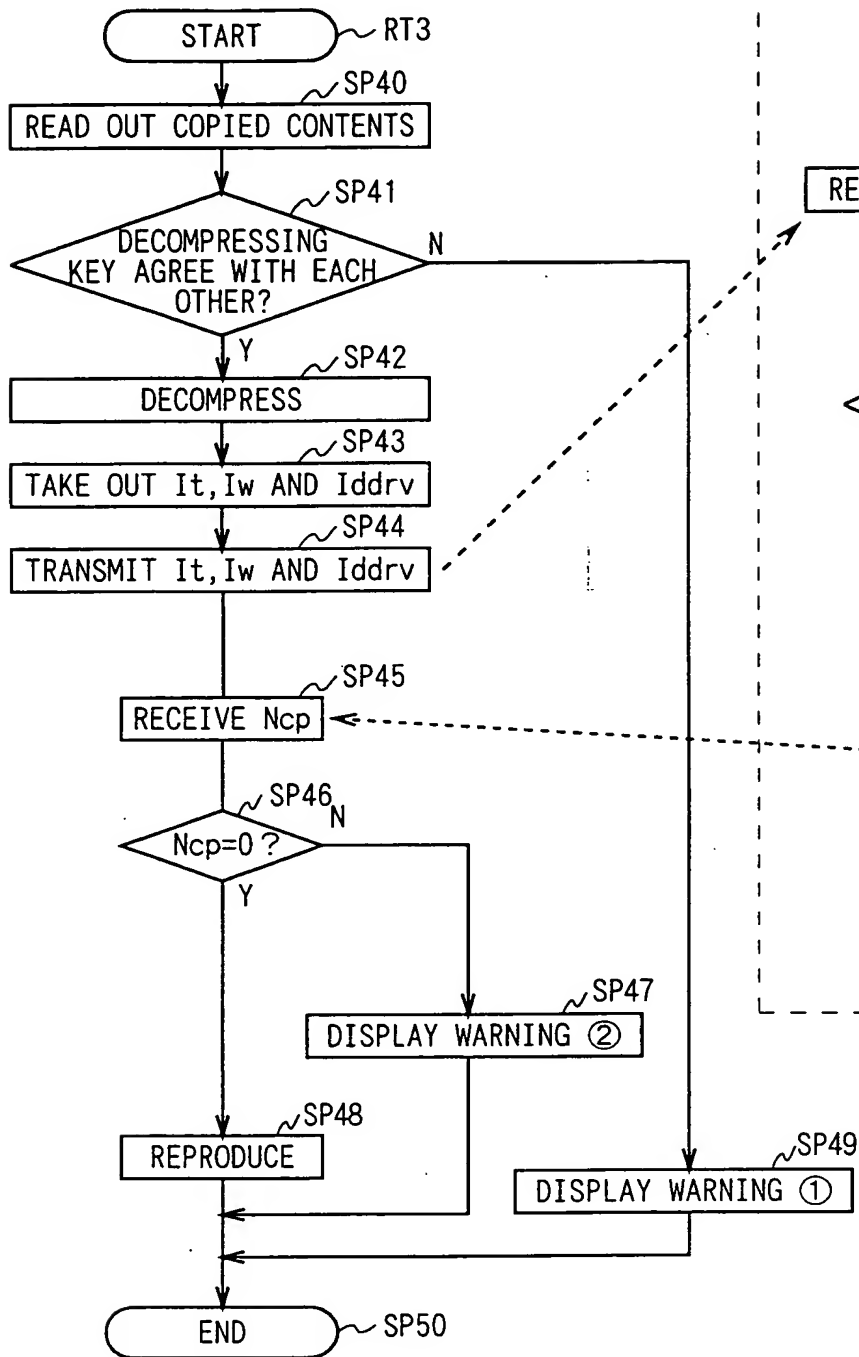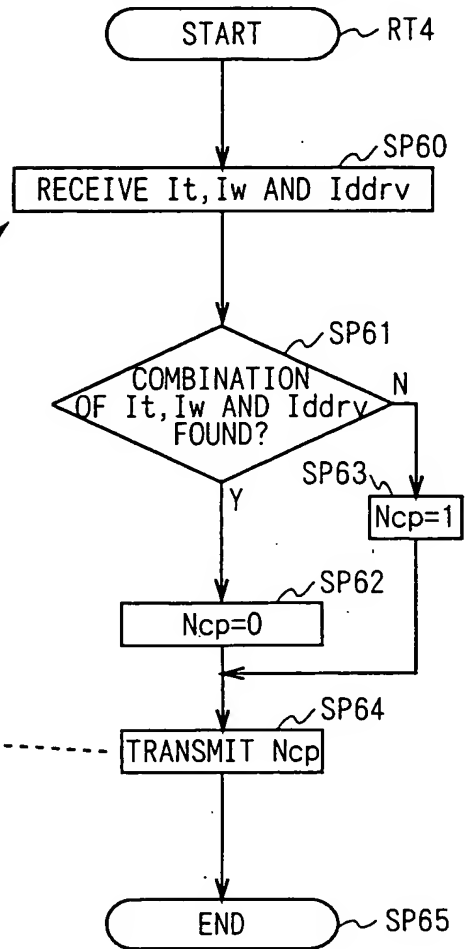FIG. 7C

REPRODUCTION PROCESS SEQUENCE
AT HARD-DISK-CONTAINING
DVD PLAYER

REPRODUCTION PROCESS SEQUENCE
AT MANAGEMENT SERVER

START — RT3

SP40
READ OUT COPIED CONTENTS

SP41
DECOMPRESSING KEY AGREE WITH EACH OTHER? — N

Y

SP42
DECOMPRESS

SP43
TAKE OUT It,Iw AND Iddrv

SP44
TRANSMIT It,Iw AND Iddrv

SP45
RECEIVE Ncp

SP46
Ncp=0 ? — N

Y

SP47
DISPLAY WARNING ②

SP48
REPRODUCE

SP49
DISPLAY WARNING ①

END — SP50

START — RT4

SP60
RECEIVE It,Iw AND Iddrv

SP61
COMBINATION OF It,Iw AND Iddrv FOUND? — N

Y

SP63
Ncp=1

SP62
Ncp=0

SP64
TRANSMIT Ncp

END — SP65

It:TITLE IDENTIFYING INFORMATION
Iw:MEDIUM IDENTIFYING INFORMATION
Iddrv:APPARATUS IDENTIFYING INFORMATION

FIG. 8

GROUP ID	COMBINATION NO. KNo	TITLE IDENTIFYING INFORMATION It	APPARATUS IDENTIFYING INFORMATION Iddrv	MEDIUM IDENTIFYING INFORMATION Iw	PHASE DIFFERENCE INFORMATION P
MG000001	M000001	DVD000010	-	C:¥wavdat¥DVD000010.000	0
UG000001	U000001	DVD000010	HDD000150	C:¥wavdat¥DVD000010.002	2
UG000001	U000002	DVD000010	HDD001030	C:¥wavdat¥DVD000010.002	2
UG000002	U000003	DVD000010	HDD001200	C:¥wavdat¥DVD000010.005	5
MG000002	M000002	DVD000230	-	C:¥wavdat¥DVD000230.000	0
UG000003	U000004	DVD000230	HDD000125	C:¥wavdat¥DVD000230.002	2
...	...	...	...	...	...

FIG. 9